

# What makes a Comprehensive Motorcyclist Safety Program?

#### NHTSA, Highway Safety Program Guideline No. 3, Motorcycle Safety

Each State, in cooperation with its political subdivisions and tribal governments and other parties as appropriate, should develop and implement a comprehensive highway safety program, reflective of State demographics, to achieve a significant reduction in traffic crashes, fatalities, and injuries on public roads.

Nov. 2006

Uniform Guidelines for State Highway Safety Programs NHTSA





#### NHTSA Guideline No. 3; Motorcycle Safety

#### 11 Aspects of a Comprehensive Motorcyclist Safety Program

- I. PROGRAM MANAGEMENT
- II. PERSONAL PROTECTIVE EQUIPMENT
- III. OPERATOR LICENSING
- IV. RIDER EDUCATION AND TRAINING
- V. OPERATION UNDER THE INFLUENCE OF ALCOHOL OR DRUGS
- VI. LEGISLATION AND REGULATIONS
- VII. LAW ENFORCEMENT
- VIII. HIGHWAY ENGINEERING
- IX. RIDER CONSPICUITY AND MOTORIST AWARENESS PROGRAMS
- X. COMMUNICATION PROGRAM
- XI. PROGRAM EVALUATION AND DATA





#### Michigan Motorcycle Action Plan 2013-2016



Rev. 12/01/2014

www.michigan.gov/ohsp





#### **Data Driven**

- NHTSA aspect XI
  - Crash Data
    - Michigan Traffic Crash Facts (MTCF)
    - www.MichiganTrafficCrashFacts.org
  - MDOS databases and records
    - Vehicle Records
    - Driver Records





#### 2014 Overview

- Average 250,000 registered motorcycles with the SOS (month to month) Currently nearly 16% of all registered motorcycles are operated by an unendorsed motorcyclist (No CY on their Drivers License)
- Nearly 60% of ALL motorcyclists involved in a crash are unendorsed (No CY)
- Nearly half of all motorcyclist crashes are "single vehicle" Nearly half of the "multi-vehicle" crashes are from rider error
- Nearly 84% (8 of 10) of motorcyclist fatalities had no formal training on their driver record in the last 10 years
- 4% (1 in 27) of crashes result in a fatality (5 yr avg)
- 18% (1 in 5) of crashes result in an incapacitating injury (5 yr avg)





#### 2014 Preliminary Michigan Crash Data

#### As of 3/17/2015

- > 2,859 MC crashes
  - $\geq$  107 Fatalities, 4%
    - ≥ 38 Fatal Single Motor Vehicle (operator), 36%
    - ➤ 41 Fatal Unendorsed (operator), 42%
  - > 510 A/Incapacitating Injuries, 18%







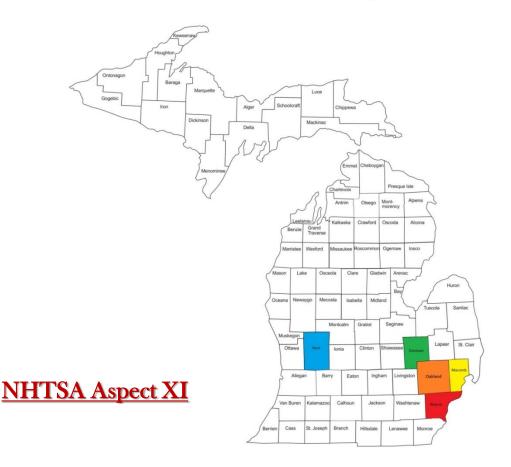
#### Michigan's Unendorsed Riders "Shadow Riders"

- ➤ 253,902 Registered Motorcycles (05/12/2012)
- ➤ 248,263 Registered Motorcycles (05/11/2013)
  - > 572,441 Endorsed Operators (06/26/2013)
- ➤ 237,093 Registered Motorcycles (04/26/2014)
- ➤ 256,478 Registered Motorcycles (08/02/2014)
  - ➤ 478,925 Endorsed Operators (05/01/2014)
- **>**48,722 Unendorsed Operators (11/2012)
- **>**46,998 Unendorsed Operators (11/2013)
- **>**40,877 Unendorsed Operators (11/2014)





# So....What's happening in Michigan's Top 5?







#### 2014 Registered Motorcycles

County	Count	State%
Wayne	26,144	11.03%
Oakland	25,240	10.65%
Macomb	17,242	7.27%
Kent	13,097	5.52%
Genesee	9,533	4.02%
Total	91,256	38.49%





#### 2013 Unendorsed Motorcyclists

County	Count	State%	State Rank
Wayne	6,279	12.89%	1
Oakland	4,617	9.48%	2
Macomb	3,121	6.41%	3
Kent	2,807	5.76%	4
Genesee	2,304	4.73%	5
Total	19,128	39.27%	





#### 2014 Unendorsed Motorcyclists

County	Count	State%	State Rank
Wayne	5,980	12.72%	1
Oakland	4,388	9.34%	2
Macomb	3,123	6.64%	3
Kent	2,811	5.98%	4
Genesee	2,280	4.85%	5
Total	18,582	39.53%	





#### 2015 Unendorsed Motorcyclists

County	Count	State%	State Rank
Wayne	5,139	12.57%	1
Oakland	3,845	9.41%	2
Macomb	2,804	6.86%	3
Kent	2,443	5.98%	4
Genesee	2,144	5.25%	5
Total	16,375	40.07%	





#### Come out of the shadows.



Get trained and get endorsed.



Dear (First Name):

#### Half of riders killed in Michigan motorcycle crashes last year were not endorsed.

Did you know?

- Rider training is available for as low as \$25
- Courses can be completed in one day
- Basic and returning rider courses are available
- Some insurance companies offer discounts with the completion of a certified motorcycle training course

#### Come out of the shadows. Get trained and get endorsed.

As a responsible motorcyclist you can reduce your own risk.

Take charge of your safety by finding a training course or skills tester near you at www.michigan.gov/motorcycling.









MICHIGAN OFFICE OF HIGHWAY SAFETY PLANNING 333 S. GRAND AVE, POBCK 30634, LANSING MI 48909-0634



















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Did you know you can be fined at least \$125 and have your motorcycle towed for riding without an endorsement?

#### In 2013:

- 70 percent of motorcycle crashes were caused by rider error
- More than half of all riders involved in crashes were not endorsed
- 85 percent of riders killed had not taken a certified motorcycle training course

Rider training is available for as low as \$25, and one-day returning rider courses are available. Some insurance companies even offer discounts after completing a certified motorcyclist training course. Take control of your safety by finding a training course or skills tester near you at Michigan.gov/motorcycling.









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#### Round #3











#### Protect your freedom.



Get endorsed or get towed.

#### Dear (name):

Law enforcement officers are concerned about motorcyclist safety.

Because unendorsed riders are more likely to be involved in a fatal crash, officers are trained to identify, ticket, and impound the bikes of unendorsed riders.

#### In 2014:

- Nearly half of riders killed in Michigan were not endorsed.
- Nearly 60% of riders involved in a crash were not endorsed.
- Eight of 10 riders killed had not taken a training course to get their endorsement.

It's easy to find training courses that cost as little as \$25. Sign up now for the nearest training course and be ready for the open road.

**New this year.** When you pass a public-sponsored training course you will receive a free high-visibility motorcyclist vest. Find a training course at



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#### Michigan.gov/motorcycling































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#### 2015 Billboard Campaign









NITARY 2015

#### Michigan Motorcycle Laws

#### **Guide for Law Enforcement Officers**

Motorcycle means every motor vehicle having a saddle or seat for the use of the rider and designed to travel on not more than 3 wheels in contact with the ground but excluding a tractor. MCL 257.31.

Moped means a 2- or 3-wheeled vehicle to which is equipped with a motor that does not exceed 100 cubic centimeters piston displacement, cannot propel the vehicle at a speed greater than 30 miles per hour on a level surface, and its power drive system does not require the operator to shift gears. MCL 257.32b.

#### ENDORSEMENTS AND TEMPORARY INSTRUCTION PERMITS

Operating with a Temporary Instruction Permit (TIP). A person with a TIP may operate a motorcycle for a period of 180 days and must:

- · Carry the permit.
- Be under the constant visual supervision of a licensed motorcycle operator who is at least 18 years of age.
- · Not operate the motorcycle at night.
- · Not operate the motorcycle with a passenger.

A person shall not be eligible for more than two (2) TIPs in a 10-year period. MCL 257,306(5).

Motorcycle Endorsement. A person, before operating a motorcycle, other than an autocycle, upon a public street or highway in this state, shall procure a motorcycle endorsement on his or her operator's or chauffeur's license. MCL 257.312a(1).

3-Wheeled Motorcycle. A motorcycle endorsement issued to a person who operates a 3-wheeled motorcycle other than an autocycle is restricted to operation of that type of motorcycle and does not permit operation of a 2-wheeled motorcycle. MCL 257.312b(3).

#### CIVIL INFRACTIONS SPECIFIC TO MOTORCYCLES

Parents or Guardians. The parent or guardian of a minor shall not authorize or knowingly permit the child to violate the laws applicable to motorcycles. MCL 257.656.

This material was developed through a project funded by the Michigan Office of Highway Safety Planning and the U.S. Department of Transportation

**Helmet use; Motorcycle Operators** – A motorcycle operator is required to wear an approved crash helmet unless he or she:

- · Is at least 21 years old,
- Has at least \$20,000 in first-party medical benefits insurance in effect, and
- Has held a motorcycle endorsement for at least two years, or has passed an approved motorcycle safety course.
   MCL 257.658(5).

**Helmet use; Motorcycle Passengers** - A motorcycle passenger is required to wear an approved crash helmet unless he or she:

- · Is at least 21 years old, and
- Has at least \$20,000 in first-party medical benefits insurance in effect in addition to the insurance that is required of the motorcycle operator. MCL 257.658(5).

Helmet use; Moped - A moped operator less than 19 years of age shall wear a crash helmet. MCL 257.658(4).

Crash Helmet Standards – When required, all helmets must meet the U.S. Department of Transportation (DOT) standards. Mich. Admin. Code. R 28.951

Riding on Seat of Motorcycle; Multiple Riders. (1)
A motorcycle operator must ride upon and astride a
permanent and regular seat attached to that vehicle. (2)
A motorcycle or moped shall not be used to carry more
persons at one time than the number for which it is
designed and equipped. MCL 257.658.

Seats and Foot Rests. A motorcycle shall be equipped with adequate seats and securely attached foot rests or pegs for each designated seating position. Unless unable to do so because of a permanent physical disability, a passenger shall not ride on a motorcycle unless his or her feet can rest on the assigned foot rests or pegs. MCL 257.658a(1).

Carrying Packages. A moped or motorcycle operator shall not carry any package, bundle, or article that prevents the driver from keeping both hands upon the handlebars of the vehicle. MCL 257.661.

Handlebars of Motorcycle. A person shall not operate a motorcycle or moped equipped with handlebars that are higher than 15 inches from the lowest point of the undepressed saddle to the highest point of the handle grips. MCL 257.661a.

Limited Access Highways. A person shall not operate a motorcycle with less than a 125 cubic centimeter engine or moped on a limited access highway. MCL 257.679a.

Windshields, Goggles, Eyeglasses or Face Shields. A person operating a motorcycle in excess of 35 miles per hour that is not equipped with a windshield, shall wear transparent goggles, eyeglasses, or a face shield, that is shatter resistant, protecting their eyes against airborne materials and other road debris. MCL 257.708a.

#### LIGHTING AND FOUIPMENT

#### Identifying Impaired Motorcycle Riders

#### Reference Guide for Law Enforcement Officers

The National Highway Traffic Safety Administration has identified several indicators that can help you detect when a motorcycle rider is impaired.

#### **EXCELLENT INDICATORS**

#### Predict impairment at least 50 percent of the time

- Turning problems
  - ~ Drifting
- ~ Unsteady
- ~ Delayed braking
- ~ Improper lean angle
- ~ Erratic movements
- Inattentive to surroundings
- Weaving
- · Trouble with dismount
- Trouble with balance at a stop
- Inappropriate or unusual behavior

#### GOOD INDICATORS

#### Predict impairment at least 30-50 percent of the time

- · Erratic movements while riding straight
- Operating without lights at night
- Recklessness
- Following too closely
- Running a stoplight or stop sign
- Evasion

#### KEEP IN MIND

- Riders often weave to avoid bumps and road hazards.
- Swaying may be the result of slowing, accelerating, or wind.



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This material was developed through a project funded by the Michigan Office of Highway Safety Planning and the U.S. Department of Transportation.



Michigan Motorcycle Laws Guide



# "Enforcing Laws for Motorcycles" Motorcycle LE Roll Call Video







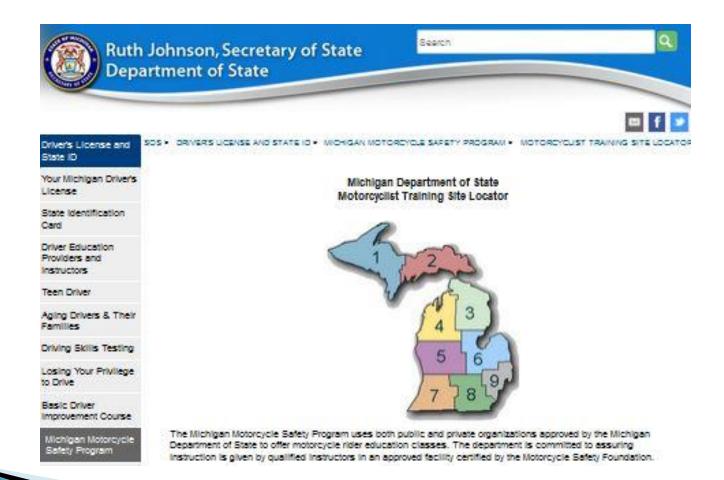
# History of the Motorcycle Rider Safety Training Program in Michigan

- 1956, Motorcycles first recognized by the State
- 1966, Highway Safety Act of 1966
- 1969, Public Act 134 of 1969
- 1972, Early training courses offered at MSU
- 1973, MSF is founded
- 1982, Public Act 187 of 1982, MDE
- 2003, Senate Bill 462, MDOS



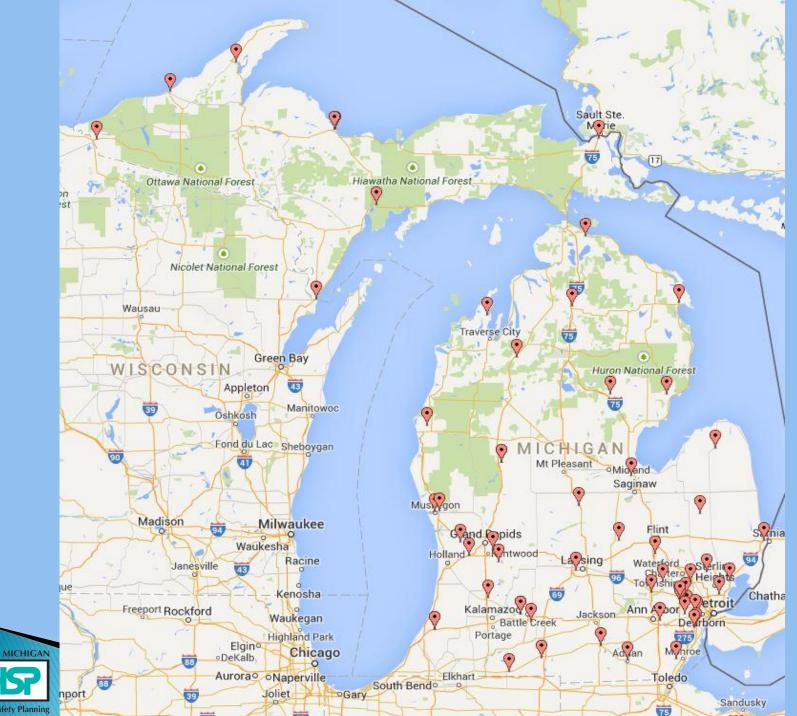


# MDOS Training Site Locator www.michigan.gov/motorcycling











# Michigan's Motorcycle Rider Safety Training Program

- NHTSA aspect III and IX
- Motorcycle Registration and Driver License endorsement fees supply just over \$1.5 million dedicated tax dollars annually
- Over the last three years we have successfully trained on average 9,300 people annually.
  - Public: 80%
  - Private: 20%
- Each year about 60% of new CY endorsements are issued to course graduates. 40% are issued to riders who take a third party skills test or are coming from out of state.
- In 2014, 84% of motorcycle crash fatalities showed no record of training on their driver records.





# Michigan's Motorcycle Rider Licensing Program Temporary Instruction Permit (TIP)

03062015 YE D065 194 0874 13.50	INFORMATION REGARDING YOUR MOTORCYCLE TEMPORARY INSTRUCTION PERMIT
MICHIGAN MOTORCYCLE TEMPORARY INSTRUCTION PERMIT  MICHIGAN DRIVER LICENSE D 000 000 000 000 EXPIRES ON 09-02-2015	This permit allows you to operate a motorcycle while under the constant visual supervision of a licensed motorcycle operator at least 18 years old. You must also have a valid operator or chauffeur license in your possession.
LICENSE TYPE O ENDORSEMENTS CY	Michigan law requires you to wear an approved, properly fastened safety helmet.
	You cannot operate a motorcycle with a passenger or at night.
	You may only have two motorcycle Temporary Instruction Permits within a 10-year period.
John Michael Doe	TO OBTAIN YOUR PERMANENT MOTORCYCLE ENDORSEMENT:
This permit must accompany a valid driver license.  See address on driver license.	You must pass a road skills test administered by an approved examiner. A fist of approved examiners is available at your local branch office.
date of birth $06041985$ sex $M$ eye color $$ BLU $$ height $62$ restrictions	Persons 18 and over who fail the road skills test twice and everyone under age 18 must present a motorcycle safety course completion certificate.
	A license fee will be charged when adding a motorcycle endorsement to your operator or chauffeur license.
	APPROVAL OF PARENT OR LEGAL GUARDIAN
SIGNATURE X	SIGNATURE X
I certify I do not have any physical or mental disability which affects my ability to operate a motor vehicle safely nor have I experienced any loss or impairment of consciousness in the past six months. I understand my signature may be retained and used for programs administered by the Department of State. NOTE: IT IS A CRIME TO MAKE A FALSE STATEMENT OR CONCEAL A MATERIAL FACT WHEN APPLYING FOR A LICENSE.	SIGNATURE OF PARENT OR LEGAL GUARDIAN I understand my signature may be retained and used for programs administered by the Department of State.

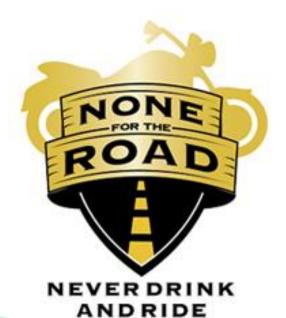
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# Intoxicated, Fatal Crashes (DUI/DWI)

% Motorcyclists > % Other Road Users



NHTSA Aspect V





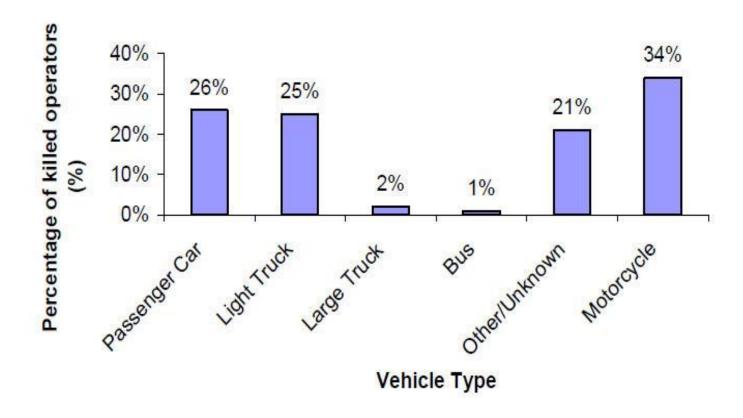
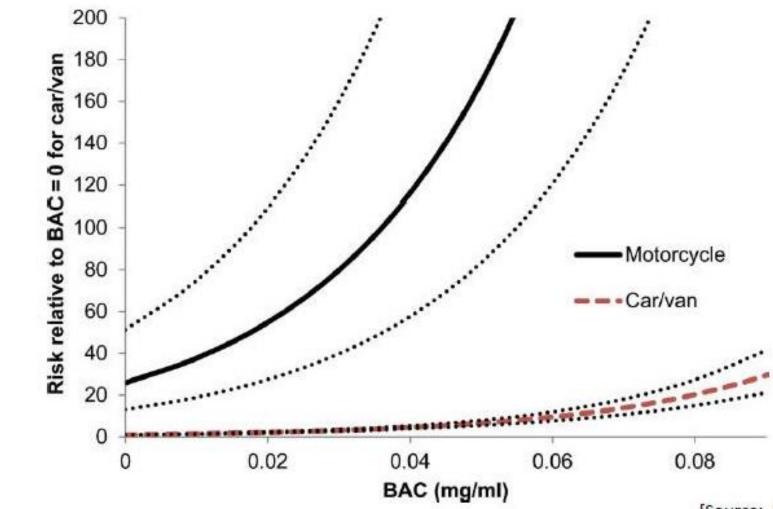


Figure 1. Percentage of U.S. vehicle operators killed in crashes in 2005 with alcohol involvement with BAC  $\geq$  .01 (NHTSA, 2006).





#### **BAC Risk Curve**



[Source: Keall et al, 2013]









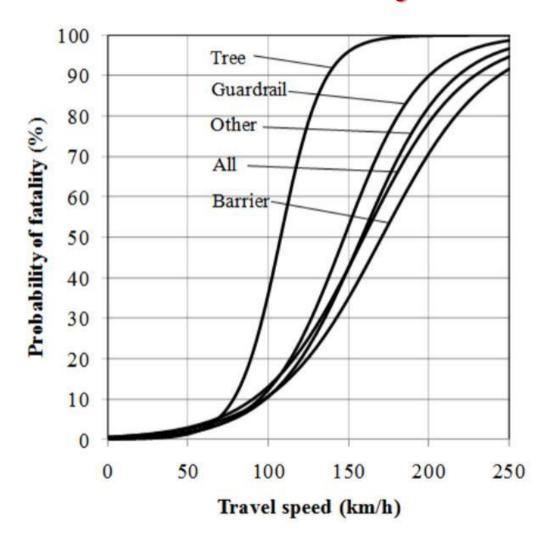








#### Survivability!













### Rider Conspicuity NHTSA Aspect IX

# High-Viz CCCLCRS and your vision



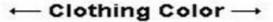
















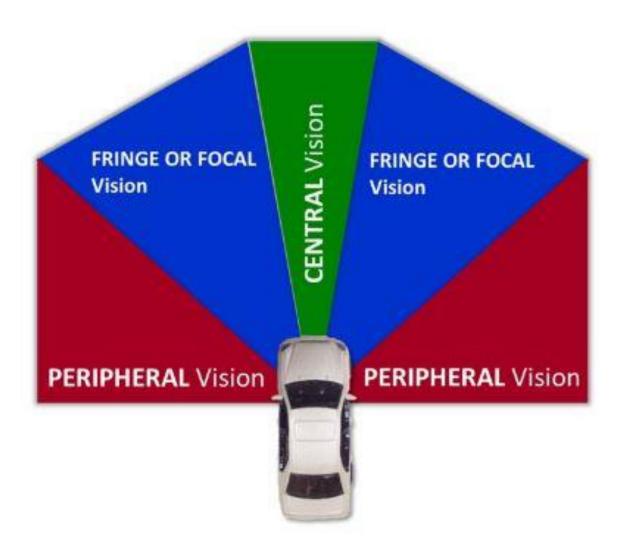
## Typical ANSI Class III Safety Vests





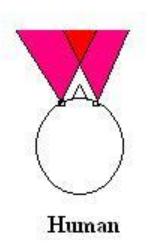


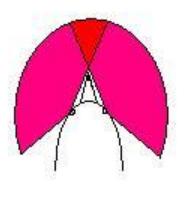
### Cone of Vision









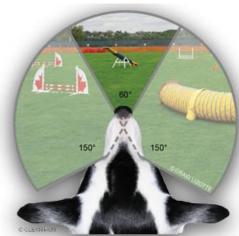


Eagle

**Eagle** 

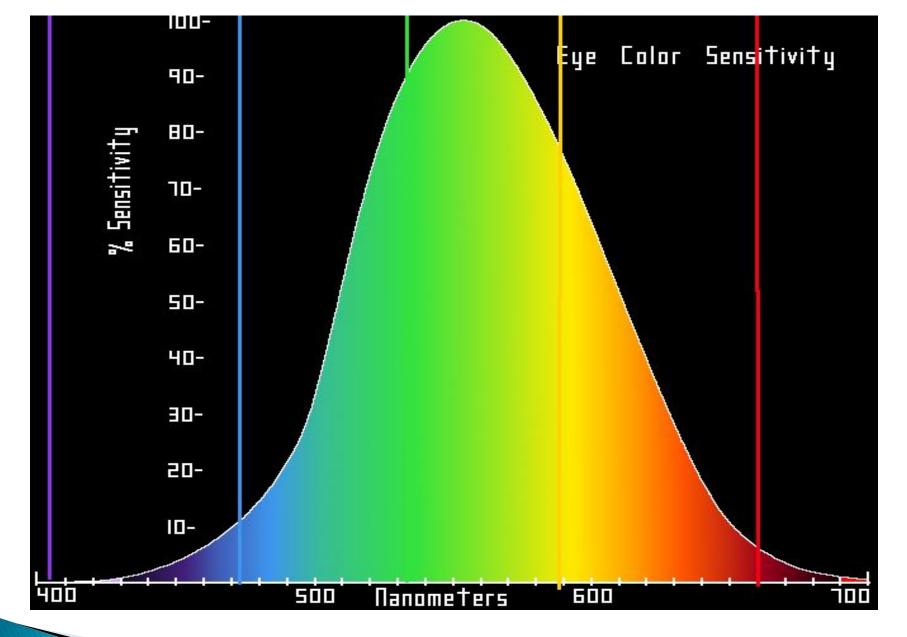
#### Man's Best Friend





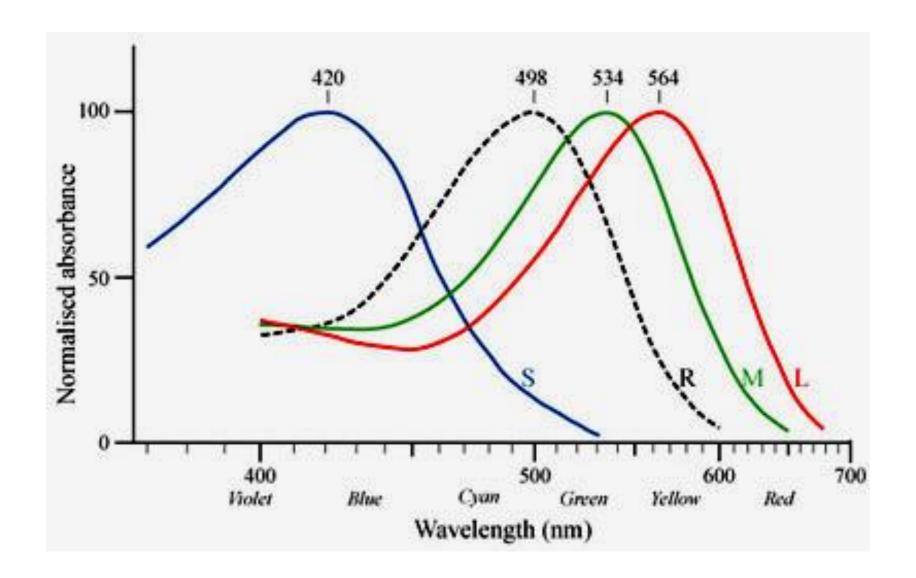












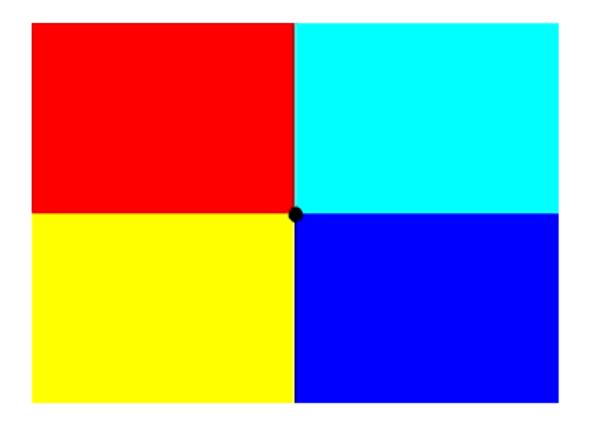










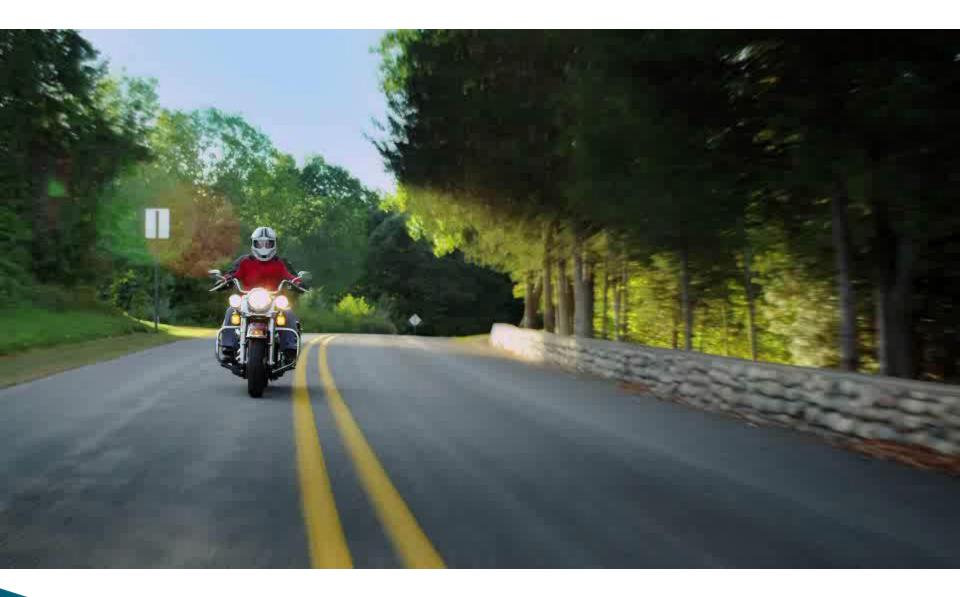
















#### BE VISIBLE. RIDE DEFENSIVELY.







# What's next?













#### **Digital Spec Sheet**

Hi-Vis Motorcycle Vest

Garment Style #'s : Hi-Vis Motorcycle Vest
Garment Color #'s : Hi-Vis Yellow (320)

















# Data Resources

- >NHTSA
- >MTCF
  - >www.MichiganTrafficCrashFacts.org
- **UMTRI**
- >MSP/CJIC
- >MDOS
- >SMSA





